

**ABSTRACT OF THE DISCLOSURE**

[0029] A system comprising a voltage controlled oscillator is disclosed. The voltage controlled oscillator includes a single input, a power input, and an oscillation input. The oscillation input is coupled to a amplitude detection device, which in turn provides an indication of an amplitude of the output of the VCO to a threshold detect module. Based upon the threshold detected at the threshold detect module, a threshold indicator is provided to a voltage supply module. The voltage supply powering the voltage controlled oscillator is varied, based upon a value of the threshold indicator.